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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,305

11/18/2003

Alastair J.D. Beadle

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EXAMINER

CAMPBELL, KELLIE L

ART UNIT

PAPER NUMBER

4115

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/716,305	Applicant(s) BEADLE ET AL.	
	Examiner Kellie Campbell	Art Unit 4115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☒ Claim(s) 18, 23, and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on November 18, 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>February 07, 2006, November 27, 2007, and January 31, 2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a first, non-final Office Action on the merits in response to the application filed on November 18, 2003. **Claims 1-42 are pending and have been examined.**

Information Disclosure Statement

2. The Information Disclosure Statements filed on February 7, 2006, November 27, 2007, and January 31, 2008 are in compliance with the provisions of 37 CFR 1.97 and have been considered. Initialed copies of the Forms 1449 are enclosed herewith.

Claim Objections

3. **Claim 18** is objected to because of the following informalities: misspelling of the word user as "usr". Appropriate correction is required.

4. **Claim 23** is objected to because of the following informalities: the claim is recited in two sentences each ending with a period. Applicant is reminded of the proper form of a claim: each claim begins with a capital letter and ends with a period. See MPEP 608.01 (m). Appropriate correction is required.

5. **Claim 40** is objected to because of the following informalities: the claim is recited in two sentences each ending with a period. Applicant is reminded of the proper form of a claim: each claim begins with a capital letter and ends with a period. See MPEP 608.01 (m). Appropriate correction is required.

Drawings

6. The drawings were received on November 13, 2003. These drawings are objected to under 37 CFR 1.84 or 1.152 for the labeling that occurs at the top of each page: Attorney Docket No.: 069547.0182, System and Method for Managing Relationships Between Brokers and Traders Using a Messaging Format, By: Alastair J.D. Beadle et al.. Appropriate correction is required. New corrected drawings in compliance with 37 CFR 1.121(d) are required. Applicants are advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Priority

7. No claim for priority has been made for this application.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 3-5, and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0088499 A1 to**

Gilbert et al. (hereinafter Gilbert) in view of U.S. Patent Application Publication No. 2002/01334488 to McGarry et al. (hereinafter McGarry).

10. **As per Claim 1**, Gilbert discloses a method of managing messages in a trading network, comprising: storing a set of user relationships between a first user and one or more second users authorized to act on behalf of the first user (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); receiving from a trading system a trading message regarding a trading order submitted on behalf of the first user (¶8, trading commands and executed trades involving principals/brokers may be presented to other traders using a specific designation on the display screen); communicating the trading message to the first user (¶8, trading commands and executed trades involving principals/brokers may be presented to other traders using a specific designation on the display screen). Gilbert does not explicitly disclose identifying from the set of user relationships each of the second users; for each of the identified second users, generating a carrier message that includes the trading message and routing information associated with that second user; and for each of the identified second users, communicating the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message. However, McGarry

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teaches identifying from the set of user relationships each of the second users (§66, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state); for each of the identified second users, generating a carrier message that includes the trading message and routing information associated with that second user (§66, each state has a group of users responsible for processing the ticket while it is in that state....a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next and §68, The user receiving the FYI Message can read the message and drill down to the ticket attached to it in Read-only Mode); and for each of the identified second users, communicating the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message (§66 each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default,

pre-selected user or group of users who are responsible for processing in the next state. and ¶67, As a ticket moves from a Deal in Progress from user to user through the workflow, it appears in the user inbox of the user(s) responsible for processing it. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teachings of McGarry in order to enhance the efficiency and effectiveness of back office trade processing as taught by McGarry (¶4-¶5).

11. **As per Claim 3**, Gilbert further discloses the method of claim 1, wherein the trading message is encapsulated within each carrier message (¶23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions).

12. **As per Claim 4**, Gilbert does not explicitly disclose the method of claim 1, further comprising: for each second user, receiving an attachment request from a client application associated with that second user; and in response to each attachment request, generating a user relationship between the first user and the respective second user. However, McGarry teaches for each second user, receiving an attachment request from a client application associated with that second user (¶68, system users may also send informational messages to other system users....The user receiving the FYI Message can read the message and drill down to the ticket attached to it); and in response to each attachment request, generating a user relationship between the first

user and the respective second user (§70, Ownership of a Deal in Progress may be handed off from user to user before being submitted for trader authorization, which is called herein a "Deal in Progress Transfer". A dialog box is preferably displayed allowing the first user to specify which user will own and process the ticket next).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teaching of McGarry in order to provide for middle office and back office processing as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

13. **As per Claim 5**, Gilbert discloses a system for managing messages in a trading network, comprising a proxy module operable to: store a set of user relationships between a first user and one or more second users authorized to act on behalf of the first user (§8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); receive from a trading system a trading message regarding a trading order submitted on behalf of the first user (§8, trading commands and executed trades involving principals/brokers may be presented to other traders using a specific designation on the display screen); communicate the trading message to the first user

(¶8, trading commands and executed trades involving principals/brokers may be presented to other traders using a specific designation on the display screen). Gilbert does not explicitly disclose that they proxy module is operable to identify from the set of user relationships each of the second users; for each of the identified second users, generate a carrier message that includes the trading message and routing information associated with that second user; and for each of the identified second users, communicate the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message. However, McGarry teaches a module operable to identify from the set of user relationships each of the second users (¶66, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state); for each of the identified second users, generate a carrier message that includes the trading message and routing information associated with that second user (¶66, each state has a group of users responsible for processing the ticket while it is in that state....a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next and ¶68, The user receiving the FYI Message can read the message and drill down to the ticket attached to it in Read-only Mode); and for each of the identified second users, communicate the respective

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carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message (§66 each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state and §67, as a ticket moves from a Deal in Progress from user to user through the workflow, it appears in the user inbox of the user(s) responsible for processing it). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teachings of McGarry in order to enhance the efficiency and effectiveness of back office trade processing as taught by McGarry (§4-§5).

14. **As per Claim 7**, Gilbert further discloses the system of claim 5, wherein the trading message is encapsulated within each carrier message (§23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions).

15. **As per Claim 8**, Gilbert discloses the system of claim 5, with a second user authorized to act on behalf of the first user (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading). Gilbert does not explicitly disclose the system of claim 5, wherein the proxy module is further operable to: receive, for each second user authorized to act on behalf of the first user, an attachment request from a client application associated with that second user; and generate, in response to each attachment request, a user relationship between the first user and the respective second user. However, McGarry teaches a module that allows each second user to receive an attachment request from a client application associated with that second user (§68, system users may also send informational messages to other system users....The user receiving the FYI Message can read the message and drill down to the ticket attached to it); and in response to each attachment request, generate a user relationship between the first user and the respective second user (§70, Ownership of a Deal in Progress may be handed off from user to user before being submitted for trader authorization, which is called herein a "Deal in Progress Transfer". A dialog box is preferably displayed allowing the first user to specify which user will own and process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teaching of McGarry in order to provide for middle office and back office processing as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and

back office processing, such as by investment bank acting either as a principal or a clearing agent, of a trade previously executed between two).

16. Claim 2, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of McGarry and in further view of U.S. Patent No. 7,356,500 B1 to Waelbroeck et al. (hereinafter Waelbroeck).

17. As per Claim 2, Gilbert discloses the method of claim 1, wherein each second user is a broker that is prevented from engaging in trading activity via the trading network (§8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and §32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Neither Gilbert nor McGarry explicitly disclose that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would

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have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert in view of McGarry so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

18. **As per Claim 6**, Gilbert discloses the system of claim 5, wherein each second user is a broker that is prevented from engaging in trading activity via the trading network (§8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and §32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Neither Gilbert nor McGarry explicitly disclose that the broker is prevented from trading

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on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert in view of McGarry so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

19. Claim 9, 11, 13, 19, 22, 26, 28, 30, 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of U.S. Patent Application Publication No. 2005/0021836 A1 to Reed et al. (hereinafter Reed) .

20. **As per Claim 9**, Gilbert discloses a method of managing messages in a trading network, comprising: storing a set of user relationships between a first user and one or more second users authorized to act on behalf of the first user in a particular trading system (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); storing an association between a particular connection with the trading system and a first user relationship between the first user and a particular second user, the particular connection being one of a plurality of connections (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); receiving from a user application associated with the particular second user a carrier message including a trading message, the trading message comprising a message regarding a trading order (¶23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions). Gilbert does not explicitly disclose separating the trading message from the carrier message. However, Reed teaches separating a trading message from a carrier message (¶48, Referring

back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key). Examiner notes the Reed teaches trading messages as one of the types of messages including in Reed's invention that is processed and routed (Figure 11, ¶2, ¶76). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert where the trading message is encapsulated within each carrier message with the teachings of Reed to separate the trading message from the carrier message by de-encapsulating the trading message from the carrier message. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to examine the contents of the message and from those contents determine the specific subject on which the outbound message should be published for consumption by the ultimate recipient of the outbound message as taught by Reed (¶14, The contents of the inbound message 302 and the outbound message 304 are going to be identical. The goal of the router 300 is to examine the contents of the inbound message 302, which is published to a general subject, and from those contents determine the specific subject on which the outbound message 304 should be published for consumption by the ultimate recipient of the outbound message 304). Also, Gilbert does not disclose identifying the particular connection from the plurality of connections based at least on information within the trading message and the stored association; and forwarding the trading message to the particular trading system via the

identified particular connection. However, Reed teaches identifying the particular connection from the plurality of connections based at least on information within the trading message and a stored association (§61, the message is evaluated on a tag-by-tag basis to determine if there is a match) ; and forwarding the trading message to the particular trading system via the identified particular connection (§61, When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert with the teachings of Reed in order to insure that all of the applications relying on the message are processed in a consistent way as taught by Reed (§46, because multiple applications may be involved and/or dependent upon a single message being processed in a particular way, it is necessary to ensure that all of the applications relying on that message operate in a consistent manner).

21. **As per Claim 11**, Gilbert discloses the method of claim 9, wherein: the trading message is encapsulated within each carrier message (§23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions). Gilbert does not disclose that separating the trading message from the carrier message comprises de-encapsulating the trading message from the carrier message. However, Reed teaches separating a trading message from a carrier message (§48, Referring back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection

module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key). Examiner notes the Reed teaches trading messages as one of the types of messages including in Reed's invention that is processed and routed (Figure 11, ¶2, ¶76). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert where the trading message is encapsulated within each carrier message with the teachings of Reed to separate the trading message from the carrier message by de-encapsulating the trading message from the carrier message. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to examine the contents of the message and from those contents determine the specific subject on which the outbound message should be published for consumption by the ultimate recipient of the outbound message as taught by Reed (¶14, The contents of the inbound message 302 and the outbound message 304 are going to be identical. The goal of the router 300 is to examine the contents of the inbound message 302, which is published to a general subject, and from those contents determine the specific subject on which the outbound message 304 should be published for consumption by the ultimate recipient of the outbound message 304).

22. **As per Claim 13**, Gilbert the method of claim 9, wherein the trading message comprises an instruction by the second user to place a new trading order on behalf of the first user (¶5, Despite the advantages afforded by electronic trading systems, some traders cannot or do not wish to operate electronic trading system workstations. They

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may lack the computer equipment or competency required to operate a workstation, or may simply not wish to perform the related duties. Instead these traders may act as a principal trader and call a broker trader of an electronic trading system and verbally relay their requested transaction. Alternatively, a principal trader may use instant messaging or electronic mail (e-mail) communications to convey information to a broker trader regarding a requested transaction. All of these types of communications require that a broker trader receiving the communications submit corresponding trading commands into an electronic trading system. Thus, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading).

23. **As per Claim 19**, Gilbert does not explicitly disclose the method of claim 9, wherein the carrier message specifies the appropriate routing for the trading message. However, Reed teaches a carrier message that specifies the appropriate routing for a trading message (¶53, While the router has sufficient intelligence to route messages to various destinations...This code will read the inbound message 302 and ¶48 This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key and ¶49, At block 520, a routing key is extracted from the inbound message 502, and the value of the routing key is evaluated). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert disclosing a trading message with the teachings of Reed so that a carrier message specifies the appropriate routing for the trading message. A person having

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ordinary skill in the art at the time the invention was made would have been motivated to do so to ensure that consumers only receive messages that are of interest to it as taught by Reed (§54, The consumer only wants to receive messages that are of interest to it, without having to worry about any other messages).

24. **As per Claim 22**, Gilbert does not explicitly disclose the method of claim 9, further comprising: storing an additional association between the particular connection with the trading system and a first user relationship between the first user and an additional one of the second users; receiving from a user application associated with the additional second user an additional carrier message including a trading message, the additional trading message comprising a message regarding the trading order; separating the additional trading message from the additional carrier message; identifying the particular connection from the plurality of connections based at least on information within the trading message and the stored additional association; and forwarding the additional trading message to the particular trading system via the identified particular connection. However, Reed teaches storing an additional association between the particular connection with the trading system and a first user relationship between the first user and an additional one of the second users (§55, a message can be initially published to a general subject, and then after the introspection occurs, can be published to the specific subject desired by a consumer); receiving from a user application associated with the additional second user an additional carrier message including a trading message , the additional trading message comprising a message regarding the trading order (§55, placing the routing logic close to the

publisher is to dispatch the message to its final destination); separating the additional trading message from the additional carrier message (§48, Referring back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key); identifying the particular connection from the plurality of connections based at least on information within the trading message and the stored additional association (§61, the message is evaluated on a tag-by-tag basis to determine if there is a match... When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination); and forwarding the trading message to the particular trading system via the identified particular connection (§61, When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert with the teachings of Reed in order to insure that all of the applications relying on the message are processed in a consistent way as taught by Reed (§46, because multiple applications may be involved and/or dependent upon a single message being processed in a particular way, it is necessary to ensure that all of the applications relying on that message operate in a consistent manner).

25. **As per Claim 26**, Gilbert discloses a system for managing messages in a trading network, comprising a client application operable to: store a set of user relationships

between a first user and one or more second users authorized to act on behalf of the first user in a particular trading system (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); store an association between a particular connection with the trading system and a first user relationship between the first user and a particular second user, the particular connection being one of a plurality of connections (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader); receive from a user application associated with the particular second user a carrier message including a trading message, the trading message comprising a message regarding a trading order (¶23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions). Gilbert does not explicitly disclose the application operable to separate the trading message from the carrier message. However, Reed teaches an application operable to separate a trading message from a carrier message (¶48, Referring back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection

module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key). Examiner notes the Reed teaches trading messages as one of the types of messages included in Reed's invention that is processed and routed (Figure 11, ¶2, ¶76). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert where the trading message is encapsulated within each carrier message with the teachings of Reed to separate the trading message from the carrier message by de-encapsulating the trading message from the carrier message. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to examine the contents of the message and from those contents determine the specific subject on which the outbound message should be published for consumption by the ultimate recipient of the outbound message as taught by Reed (¶14, The contents of the inbound message 302 and the outbound message 304 are going to be identical. The goal of the router 300 is to examine the contents of the inbound message 302, which is published to a general subject, and from those contents determine the specific subject on which the outbound message 304 should be published for consumption by the ultimate recipient of the outbound message 304). Also, Gilbert does not disclose the client application operable to identify the particular connection from the plurality of connections based at least on information within the trading message and the stored association; and forward the trading message to the particular trading system via the identified particular connection. However, Reed

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teaches a client application operable to identify the particular connection from the plurality of connections based at least on information within the trading message and a stored association (§61, the message is evaluated on a tag-by-tag basis to determine if there is a match) ; and forward the trading message to the particular trading system via the identified particular connection (§61, When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert with the teachings of Reed in order to insure that all of the applications relying on the message are processed in a consistent way as taught by Reed (§46, because multiple applications may be involved and/or dependent upon a single message being processed in a particular way, it is necessary to ensure that all of the applications relying on that message operate in a consistent manner).

26. **As per Claim 28**, Gilbert discloses the system of claim 26, wherein: the trading message is encapsulated within each carrier message (§23, Computer communication network 128 may include user computers 130 and 134 and data network 132. User computers 130 and 134 may be used to provide instant messaging, e-mail, "voice over IP," video conferencing, and any other suitable communication functions). Gilbert does not disclose that separating the trading message from the carrier message comprises de-encapsulating the trading message from the carrier message. However, Reed teaches separating a trading message from a carrier message (§48, Referring back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection

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module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key). Examiner notes the Reed teaches trading messages as one of the types of messages including in Reed's invention that is processed and routed (Figure 11, ¶2, ¶76). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Gilbert where the trading message is encapsulated within each carrier message with the teachings of Reed to separate the trading message from the carrier message by de-encapsulating the trading message from the carrier message. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to examine the contents of the message and from those contents determine the specific subject on which the outbound message should be published for consumption by the ultimate recipient of the outbound message as taught by Reed (¶14, The contents of the inbound message 302 and the outbound message 304 are going to be identical. The goal of the router 300 is to examine the contents of the inbound message 302, which is published to a general subject, and from those contents determine the specific subject on which the outbound message 304 should be published for consumption by the ultimate recipient of the outbound message 304).

27. **As per Claim 30**, Gilbert discloses the system of claim 26, wherein the trading message comprises an instruction by the second user to place a new trading order on behalf of the first user (¶5, Despite the advantages afforded by electronic trading systems, some

traders cannot or do not wish to operate electronic trading system workstations. They may lack the computer equipment or competency required to operate a workstation, or may simply not wish to perform the related duties. Instead these traders may act as a principal trader and call a broker trader of an electronic trading system and verbally relay their requested transaction. Alternatively, a principal trader may use instant messaging or electronic mail (e-mail) communications to convey information to a broker trader regarding a requested transaction. All of these types of communications require that a broker trader receiving the communications submit corresponding trading commands into an electronic trading system. Thus, there may be principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading).

28. **As per Claim 36**, Gilbert does not explicitly disclose the system of claim 26, wherein the carrier message specifies the appropriate routing for the trading message. However, Reed teaches a carrier message that specifies the appropriate routing for a trading message (¶53, While the router has sufficient intelligence to route messages to various destinations. This code will read the inbound message 302 and ¶48 This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key and ¶49, At block 520, a routing key is extracted from the inbound message 502, and the value of the routing key is evaluated). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method of Gilbert disclosing a trading message with the teachings of Reed so that a carrier

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message specifies the appropriate routing for the trading message. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so to ensure that consumers only receive messages that are of interest to it as taught by Reed (¶54, The consumer only wants to receive messages that are of interest to it, without having to worry about any other messages).

29. **As per Claim 39**, Gilbert does not explicitly disclose the system of claim 26, wherein the client application is further operable to: store an additional association between the particular connection with the trading system and a first user relationship between the first user and an additional one of the second users; receive from a user application associated with the additional second user an additional carrier message including a trading message, the additional trading message comprising a message regarding the trading order; separate the additional trading message from the additional carrier message; identify the particular connection from the plurality of connections based at least on information within the trading message and the stored additional association; and forward the additional trading message to the particular trading system via the identified particular connection. However, Reed teaches storing an additional association between the particular connection with the trading system and a first user relationship between the first user and an additional one of the second users (¶55, a message can be initially published to a general subject, and then after the introspection occurs, can be published to the specific subject desired by a consumer); receiving from a user application associated with the additional second user an additional carrier message including a trading message, the additional trading message comprising a

message regarding the trading order (§55, placing the routing logic close to the publisher is to dispatch the message to its final destination); separating the additional trading message from the additional carrier message (§48, Referring back to FIG. 5, the inbound message 502 is first examined at block 510, where an introspection module or key extraction routine is called. This code will read a message and extract the information needed to determine how to route the inbound message 502 to the proper specific subject, namely a routing key); identifying the particular connection from the plurality of connections based at least on information within the trading message and the stored additional association (§61, the message is evaluated on a tag-by-tag basis to determine if there is a match... When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination); and forwarding the trading message to the particular trading system via the identified particular connection (§61, When the rules are nested ...all of the conditions specified by the rule must be met in order for a message to be published to the destination). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Gilbert with the teachings of Reed in order to insure that all of the applications relying on the message are processed in a consistent way as taught by Reed (§46, because multiple applications may be involved and/or dependent upon a single message being processed in a particular way, it is necessary to ensure that all of the applications relying on that message operate in a consistent manner).

30. Claim 10, 21, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Reed and in further view of Waelbroeck.

31. **As per Claim 10**, Gilbert discloses the method of claim 9, wherein the second user is a broker that is prevented from engaging in trading activity via the trading network (¶8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Neither Gilbert nor Reed explicitly discloses that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated

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to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

32. **As per Claim 21**, Gilbert further discloses the method of claim 20, wherein each second user is a broker that is prevented from engaging in trading activity via the trading network (¶8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Neither Gilbert nor Reed explicitly disclose that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based

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on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

33. **As per Claim 27**, Gilbert further discloses the system of claim 26, wherein the second user is a broker that is prevented from engaging in trading activity via the trading network (¶8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a

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broker). Neither Gilbert nor Reed explicitly discloses that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

34. Claims 12, 14-17, 20, 23,-25, 29, 31-34, 37, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Reed and in further view of McGarry.

35. **As per Claim 12**, Neither Gilbert nor Reed explicitly disclose the method of claim 9, wherein the trading message represents a trading message that would be generated by an application associated with the first user if the first user were to submit the trading order. However, McGarry teaches a client-accessible trade capture system where the client has the same access to send trade messages as the broker.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the trading message of Gilbert with the client-accessibility taught by McGarry so that the trading message represents a trading message that would be generated by an application associated with the first user if the first user were to submit the trading order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to provide clients with a single trade capture platform, in which products besides derivatives, such as cash and futures trades, may be handled, which in turn provides the investment house a competitive advantage as taught by McGarry (§7, A client-assessable [sic] trade capture system is desirable, however, because it would provide clients with a single trade capture platform, in which products besides derivatives, such as cash and futures trades, may be handled, which in turn provides the investment house a competitive advantage. A client-assessable trade capture system would also provide the clients with links to the internal risk, margin and counterparty services of the investment bank, access to historical trade activity, as well as trade validation and confirmation).

36. **As per Claim 14**, Neither Gilbert nor Reed explicitly disclose the method of claim 9, wherein the trading message comprises an instruction by the second user to manage a trading order previously placed by the second user on behalf of the first user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (¶52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and ¶66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second user on behalf of the first users (¶5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (¶4, few large brokerages have developed on-line trading systems for individual traders. These systems,

however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

37. **As per Claim 15**, Gilbert discloses the method of claim 14, wherein the trading message comprises an instruction by the second user to change the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶30, In order to hit a bid or lift (or take) an offer for the instrument indicated in display 301 using interface 300, a trader may first specify a size in field 330 using up and down buttons 332 and/or 334 and/or using keypad 302).

38. **As per Claim 16**, Gilbert discloses the method of claim 14, wherein the trading message comprises an instruction by the second user to cancel the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶31, In the event that a trader desires to cancel a bid, an offer, a hit, or a lift (or take), the trader may press any corresponding one of buttons 308, 310, 316, 318, 320, and 322.).

39. **As per Claim 17**, Neither Gilbert nor Reed explicitly disclose the method of claim 9, wherein the trading message comprises an instruction by the second user to manage

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a trading order previously placed on behalf of the first user by a user other than the second user. However, McGarry teaches a instruction by the second user to manage a trading order previously placed on behalf of the first user by users other than the second user (§52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and §66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by instruction by the second user to manage a trading order previously placed on behalf of the first user by a user other than the second user. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide

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for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

40. **As per Claim 20**, Gilbert discloses the method of claim 9, further comprising: receiving from the particular trading system a trading system trading message in response to the trading message received from the second user (§27, Interface 300 may be presented on a trader's workstation in response to the trader clicking on any of portions 202, 204, 206, 208, and 210 of bid and offer 201. When presented, interface 300 may then indicate information about the bid and offer clicked-on by the trader in a display 301); communicating the trading message to the first user (§27, Interface 300 may be presented on a trader's workstation in response to the trader clicking on any of portions 202, 204, 206, 208, and 210 of bid and offer 201. When presented, interface 300 may then indicate information about the bid and offer clicked-on by the trader in a display 301). Neither Gilbert nor Reed explicitly disclose identifying from the set of user relationships each of the second users authorized to act on behalf of the first user; for each of the identified second users, generating a carrier message that includes the trading system trading message and routing information associated with that second user; and for each of the identified second users, communicating the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message. However, McGarry teaches identifying from the set of user relationships each of the second users (§66, the user may specify which users, or group of users, should be prompted to process the

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ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state); for each of the identified second users, generating a carrier message that includes the trading message and routing information associated with that second user (¶66, each state has a group of users responsible for processing the ticket while it is in that state....a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next and ¶68, The user receiving the FYI Message can read the message and drill down to the ticket attached to it in Read-only Mode); and for each of the identified second users, communicating the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message (¶66 each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state. and ¶67, As a ticket moves from a Deal in Progress from user to user through the

workflow, it appears in the user inbox of the user(s) responsible for processing it.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teachings of McGarry in order to enhance the efficiency and effectiveness of back office trade processing as taught by McGarry (¶4-¶5).

41. **As per Claim 23**, Gilbert discloses the method of claim 9, wherein: the trading message comprises an instruction by the second user to place a trading order on behalf of the first user (¶8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader). Gilbert does not explicitly disclose the additional trading message comprises an instruction by the additional second user to manage the trading order placed by the second user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (¶52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and ¶66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of

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users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second user on behalf of the first users (¶5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (¶4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

42. **As per Claim 24**, Gilbert discloses the method of claim 23, wherein the additional trading message comprises an instruction by the additional second user to change the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶30, In order to hit a bid or lift (or take) an offer for the instrument indicated in display 301 using interface 300, a trader may first specify a size in field 330 using up and down buttons 332 and/or 334 and/or using keypad 302 and Figure 3).

43. **As per Claim 25**, Gilbert discloses the method of claim 23, wherein the additional trading message comprises an instruction by the additional second user to cancel the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶31, In the event that a trader desires to cancel a bid, an offer, a hit, or a lift (or take), the trader may press any corresponding one of buttons 308, 310, 316, 318, 320, and 322).

44. **As per Claim 29**, Neither Gilbert nor Reed explicitly disclose the system of claim 26, wherein the trading message represents a trading message that would be generated by an application associated with the first user if the first user were to submit the trading order. However, McGarry teaches a client-accessible trade capture system where the client has the same access to send trade messages as the broker. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the trading message of Gilbert with the client-accessibility taught by McGarry so that the trading message represents a trading message that would be generated by an application associated with the first user if the first user were to submit the trading order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to provide clients with a single trade capture platform, in which products besides derivatives, such as cash and futures trades, may be handled, which in turn provides the investment

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house a competitive advantage as taught by McGarry (¶7, A client-assessable [sic] trade capture system is desirable, however, because it would provide clients with a single trade capture platform, in which products besides derivatives, such as cash and futures trades, may be handled, which in turn provides the investment house a competitive advantage. A client-assessable trade capture system would also provide the clients with links to the internal risk, margin and counterparty services of the investment bank, access to historical trade activity, as well as trade validation and confirmation).

45. **As per Claim 31**, Neither Gilbert nor Reed explicitly disclose the system of claim 26, wherein the trading message comprises an instruction by the second user to manage a trading order previously placed by the second user on behalf of the first user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (¶52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and ¶66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of

Gilbert where a trading order is placed by a second user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

46. **As per Claim 32**, Gilbert further discloses the system of claim 31, wherein the trading message comprises an instruction by the second user to change the trading order (§4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and §30, In order to hit a bid or lift (or take) an offer for the instrument indicated in display 301 using interface 300, a trader may first specify a size in field 330 using up and down buttons 332 and/or 334 and/or using keypad 302 and Figure 3).

47. **As per Claim 33**, Gilbert further discloses the system of claim 31, wherein the trading message comprises an instruction by the second user to cancel the trading

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order. ¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶31, In the event that a trader desires to cancel a bid, an offer, a hit, or a lift (or take), the trader may press any corresponding one of buttons 308, 310, 316, 318, 320, and 322.)

48. **As per Claim 34**, Neither Gilbert nor Reed explicitly disclose the system of claim 26, wherein the trading message comprises an instruction by the second user to manage a trading order previously placed on behalf of the first user by a user other than the second user. However, McGarry teaches a instruction by the second user to manage a trading order previously placed on behalf of the first user by users other than the second user (¶52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and ¶66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a

trading order is placed by a second user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by instruction by the second user to manage a trading order previously placed on behalf of the first user by a user other than the second user. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

49. **As per Claim 37**, Gilbert discloses the system of claim 26, wherein the client application is further operable to: receive from the particular trading system a trading system trading message in response to the trading message received from the second user (§27, Interface 300 may be presented on a trader's workstation in response to the trader clicking on any of portions 202, 204, 206, 208, and 210 of bid and offer 201. When presented, interface 300 may then indicate information about the bid and offer clicked-on by the trader in a display 301); communicate the trading message to the first user (§27, Interface 300 may be presented on a trader's workstation in response to the trader clicking on any of portions 202, 204, 206, 208, and 210 of bid and offer 201. When presented, interface 300 may then indicate information about the bid and offer

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clicked-on by the trader in a display 301). Gilbert does not explicitly disclose the client application operable to identify from the set of user relationships each of the second users authorized to act on behalf of the first user; for each of the identified second users, generate a carrier message that includes the trading system trading message and routing information associated with that second user; and for each of the identified second users, communicate the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message. Gilbert does not explicitly disclose that they proxy module is operable to identify from the set of user relationships each of the second users; for each of the identified second users, generate a carrier message that includes the trading message and routing information associated with that second user; and for each of the identified second users, communicate the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message. However, McGarry teaches an application operable to identify from the set of user relationships each of the second users (¶¶66, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state); for each of the identified second users, generate a carrier message that includes the trading message and routing information associated with that second user (¶¶66, each state has a group of users responsible for processing the ticket while it is in that state....a user may move the ticket onto the desktops of the users responsible for processing in the next state,

which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next and ¶68, The user receiving the FYI Message can read the message and drill down to the ticket attached to it in Read-only Mode); and for each of the identified second users, communicate the respective carrier message toward a user application associated with that second user based at least on the routing information included in the respective carrier message (¶66 each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". Each time a ticket is submitted for authorization or is authorized, a dialog box may be displayed. Within this dialog box, the user may specify which users, or group of users, should be prompted to process the ticket next. The dialog box preferably has a default, pre-selected user or group of users who are responsible for processing in the next state and ¶67, As a ticket moves from a Deal in Progress from user to user through the workflow, it appears in the user inbox of the user(s) responsible for processing it). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert with the teachings of McGarry in order to enhance the efficiency and effectiveness of back office trade processing as taught by McGarry (¶4-¶5).

50. **As per Claim 40**, Gilbert further discloses the system of claim 26, wherein: the trading message comprises an instruction by the second user to place a trading order on behalf of the first user (§8, a database containing information relating to traders in the trading system is designed to indicate which participants utilize a principal/broker relationship and what, if any, limitations are placed on the activity of the broker trader, such as on types of trading commands submitted by the broker trader, and counterparties in a transaction with the broker trader). Neither Gilbert nor Reed disclose the additional trading message comprises an instruction by the additional second user to manage the trading order placed by the second user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (§52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and §66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders

who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (¶4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

51. **As per Claim 41**, Gilbert the system of claim 40, wherein the additional trading message comprises an instruction by the additional second user to change the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶30, In order to hit a bid or lift (or take) an offer for the instrument indicated in display 301 using interface 300, a trader may first specify a size in field 330 using up and down buttons 332 and/or 334 and/or using keypad 302 and Figure 3).

52. **As per Claim 42**, Gilbert discloses the system of claim 40, wherein the additional trading message comprises an instruction by the additional second user to cancel the trading order (¶4, In response to this bid, a second trader may sell a certain quantity and "hit" the bid by pressing a suitable button or entering a command on another

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workstation connected to the trading system. If the second trader meets certain requirements, the second trader then causes a trade to be executed upon hitting the first trader's bid and ¶31, In the event that a trader desires to cancel a bid, an offer, a hit, or a lift (or take), the trader may press any corresponding one of buttons 308, 310, 316, 318, 320, and 322).

53. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Reed and in further view of Waelbroeck and in further view of McGarry.

54. As per Claim 38, Gilbert the system of claim 37, wherein each second user is a broker that is prevented from engaging in trading activity via the trading network (¶8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Gilbert does not explicitly disclose that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running

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(Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order).

55. Claims 18 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Reed and in further view of Waelbroeck and in further view of McGarry.

56. As per Claim 18, Gilbert discloses the method of claim 9, wherein; and the second user and the third user are brokers that are prevented from engaging in trading activity via the trading network on behalf of themselves (§8, Similarly, the ability of

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broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Gilbert does not explicitly disclose that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk

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of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order). Gilbert, also, does not disclose that the trading message comprises an instruction by the second user to manage a trading order previously placed on behalf of the first user by a third user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (§52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and §66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (§4, few large brokerages

have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

57. **As per Claim 35**, Gilbert the system of claim 26, wherein: the second user and the third user are brokers that are prevented from engaging in trading activity via the trading network on behalf of themselves(¶8, Similarly, the ability of broker traders to enter certain trading commands, and the ability of other traders to enter certain trading commands in response to broker traders, may be limited and ¶32, Because limitations may be placed by an administrator of trading system 101 or by a broker trader operating one of workstations 102 or 104 (or by the broker trader's employer or principal, as the case may be), interface 300 may prevent a trader from submitting bids and offers and/or from acting on certain bids and offers posted by another trader, when the trader is acting as a broker). Gilbert does not explicitly disclose that the broker is prevented from trading on behalf of itself. However, Waelbroeck teaches identifying inappropriate trading behavior such as front running (Column 4, Lines 63-65, the CTI user database 50 also contains information regarding inappropriate trading behavior such as peg gaming and front running and Column 6, Lines 60-62, the user can exclude MPs based on any identified inappropriate trading behavior such as front running). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert so that a broker is prevented from engaging in trading activity via the trading network on behalf of itself by front running. A

person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to keep brokers from executing orders on a security for their own account (and thus affecting prices) before filling orders previously submitted by their customers. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to prevent adverse price actions to the broker's customer's as taught by Waelbroeck (Column 1, Lines 36-39, There is also an empirically demonstrable risk of adverse price action due to "front running" (buying activity by market participants in anticipation of price movement resulting from the large revealed order). Gilbert, also, does not disclose that the trading message comprises an instruction by the second user to manage a trading order previously placed on behalf of the first user by a third user. However, McGarry teaches a message with an instruction by the second user to manage a trading order (§52, a Deal in Progress is created by the client ... Deal in Progress of state 102 is then submitted or trader authorization, entering the Pending Trader Authorization state 104. When authorized, the deal then moves to the Pending Middle Office Processing state 106 and §66, each state has a group of users responsible for processing the ticket while it is in that state. When processing in a given state has been completed, a user may move the ticket onto the desktops of the users responsible for processing in the next state, which is called herein the "State Transition Process". ...the user may specify which users, or group of users, should be prompted to process the ticket next). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the invention of Gilbert where a trading order is placed by a second

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user on behalf of the first users (§5, there may exist principal traders, who direct the trading actions of broker traders, and broker traders who actually utilize the electronic trading system to engage in trading) with the teachings of McGarry so that a trading message includes an instruction by the second user to manage that order. A person having ordinary skill in the art at the time the invention was made would have been motivated to do so in order to allow for middle and back office processing of trades as taught by McGarry (§4, few large brokerages have developed on-line trading systems for individual traders. These systems, however, do not provide for middle office and back office processing, such as by an investment bank acting either as a principal or a clearing agent, of a trade previously executed between two parties).

58. **NOTE:** Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

Conclusion

Additionally, the following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- U.S. Patent No. 7,035,819 B1 to Gianakouros et al. directed to a method and system for facilitating automated interaction of marketable retail orders and professional trading interests at passively determined prices.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Kellie Campbell whose telephone number is (571) 270-5495. The examiner can normally be reached on Monday through Thursday, 6:30 am to 5 pm EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley Bayat can be reached on 571-272-6704. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K. C.

Examiner, Art Unit 4115

/Bradley B Bayat/

Supervisory Patent Examiner, Art Unit 4115